

C/ 21. A cell, comprising:

a first nucleic acid molecule comprising:

a promoter or enhancer operable for a nucleic acid molecule encoding a protein involved in drug metabolism;

a reporter gene,

wherein said promoter or enhancer is operably linked to said reporter gene;

and

a second nucleic acid encoding an intracellular receptor or transcription factor, wherein when said intracellular receptor or transcription factor is bound with, associated with or activated by a compound, said intracellular receptor or transcription factor can operably bind with, associate with or activate said promoter or enhancer resulting in the expression of said reporter gene;

wherein when said cell is contacted with a compound that induces the expression of said protein involved in drug metabolism, said reporter gene is expressed.

22. The cell of claim 21, wherein said protein involved in drug metabolism is a P450.

23. The cell of claim 21, wherein said protein involved in drug metabolism is a glucuronosyl transferase.

24. The cell of claim 21, wherein said protein involved in drug metabolism is a N-acetyltrasferase.

25. The cell of claim 21, wherein said protein involved in drug metabolism is a p-glycoprotein.

26. The cell of claim 21, wherein said protein involved in drug metabolism is a glutathione transferase.
27. The cell of claim 21, wherein said protein involved in drug metabolism is a sulfo transferase.
28. The cell of Claim 21, wherein said protein involved in drug metabolism is MDR1.
29. The cell of claim 21, wherein said reporter gene encodes an enzyme.
30. The cell of claim 21, wherein said reporter gene encodes a detectable protein.
31. The cell of claim 21, wherein said first nucleic acid molecule is present in an extrachromosomal element.
32. The cell of claim 21, wherein said first nucleic acid molecule is within the chromosome of said cell.
33. The cell of claim 21, wherein said reporter gene is inserted into the chromosome of said cell.
34. The cell of claim 21, wherein said enhancer or promoter is endogenous to the chromosome of said cell.
35. The cell of claim 21, wherein said reporter gene is endogenous to the chromosome of said cell.

36. The cell of claim 21, wherein said intracellular receptor or transcription factor forms a complex with a drug and directly or indirectly produces transcriptional activation of a gene encoding a protein involved in drug metabolism.
37. The cell of claim 21, wherein said intracellular receptor or transcription factor forms a complex with a chemical and directly or indirectly produces transcriptional activation of a gene encoding protein involved in drug metabolism.
- C\ 38. The cell of claim 21, wherein said intracellular receptor or transcription factor forms a complex with a metabolite and directly or indirectly produces transcriptional activation of a gene encoding protein involved in drug metabolism.
39. The cell of claim 21, wherein said intracellular receptor or transcription factor is an orphan receptor.
40. The cell of claim 21, wherein said intracellular receptor or transcription factor is a hormone receptor.
41. The cell of claim 21, wherein said second nucleic acid molecule is present in an extrachromosomal element.
42. The cell of claim 21, wherein said second nucleic acid molecule is present within the chromosome of said cell.
43. The cell of claim 21, wherein said second nucleic acid molecule is endogenous to the chromosome of said cell.
44. The cell of claim 21, wherein said cell is a mammalian cell.

45. The cell of claim 21, wherein said cell is a transformed cell.
46. The cell of claim 21, wherein said cell is a human cell.
47. The cell of claim 21, wherein said cell is a cell line.
48. The cell of claim 21, wherein said cell is from liver tissue.
49. The cell of claim 21, wherein said cell is from gastrointestinal tract tissue.
50. The cell of claim 21, wherein said cell is from lung tissue.
51. The cell of claim 21, wherein said cell is from kidney tissue.
52. A method for evaluating compounds for the property of inducing the expression of a gene encoding a protein involved in drug metabolism, comprising;
providing a test compound;
contacting said test compound with a cell, comprising:
a first nucleic acid molecule comprising:
a promoter or enhancer operable for a nucleic acid molecule
encoding a protein involved in drug metabolism;
a reporter gene,
wherein said promoter or enhancer is operably linked to said
reporter gene; and
a second nucleic acid encoding an intracellular receptor or transcription
factor, wherein when said intracellular receptor or transcription
factor is bound with, associated with or activated by a compound,
said intracellular receptor or transcription factor can operably bind

with, associate with or activate said promoter or enhancer resulting in the expression of said reporter gene;
wherein when said cell is contacted with a compound that induces the expression of said protein involved in drug metabolism, said reporter gene is expressed; and
detecting the expression of said reporter gene;
wherein expression of said reporter gene is indicative that said compound altered the expression of a gene encoding a protein involved in drug metabolism.

53. The method of claim 51, wherein said method is a high throughput method.
54. The method of claim 51, wherein said protein involved in drug metabolism is a P450.
55. The method of claim 51, wherein said protein involved in drug metabolism is a glucuronosyl transferase.
56. The method of claim 51, wherein said protein involved in drug metabolism is a N-acetyltrasferase.
57. The method of claim 51, wherein said protein involved in drug metabolism is a p-glycoprotein.
58. The method of claim 51, wherein said protein involved in drug metabolism is a glutathione trasferase.
59. The method of claim 51, wherein said protein involved in drug metabolism is MDR1.

60. The method of claim 51, wherein said protein involved in drug metabolism is a sulfo transferase.
61. The method of claim 51, wherein said reporter gene encodes an enzyme.
62. The method of claim 51, wherein said reporter gene encodes a detectable protein.
63. The method of claim 51, wherein said first nucleic acid molecule is present in an extrachromosomal element.
64. The method of claim 51, wherein said first nucleic acid molecule is within the chromosome of said cell.
65. The method of claim 51, wherein said reporter gene is inserted into the chromosome of said cell.
66. The method of claim 51, wherein said enhancer or promoter is endogenous to the chromosome of said cell.
67. The method of claim 51, wherein said reporter gene is endogenous to the chromosome of said cell.
68. The method of claim 51, wherein said intracellular receptor or transcription factor forms a complex with a drug and directly or indirectly produces transcriptional activation of a gene encoding a protein involved in drug metabolism.

69. The method of claim 51, wherein said intracellular receptor or transcription factor forms a complex with a chemical and directly or indirectly produces transcriptional activation of a gene encoding protein involved in drug metabolism.
70. The method of claim 51, wherein said intracellular receptor or transcription factor forms a complex with a metabolite and directly or indirectly produces transcriptional activation of a gene encoding protein involved in drug metabolism.
71. The method of claim 51, wherein said intracellular receptor or transcription factor is an orphan receptor.
72. The method of claim 51, wherein said intracellular receptor or transcription factor is a hormone receptor.
73. The method of claim 51, wherein said second nucleic acid molecule is present in an extrachromosomal element.
74. The method of claim 51, wherein said second nucleic acid molecule is present within the chromosome of said cell.
75. The method of claim 51, wherein said second nucleic acid molecule is endogenous to the chromosome of said cell.
76. The method of claim 51, wherein said cell is a mammalian cell.
77. The method of claim 51, wherein said cell is a transformed cell.